

Serial No. 09/908,950 filed 7/19/01
Response of 6/7/06 to Office Action of 3/7/06

Remarks

Receipt is acknowledged of the Office Action of March 7, 2006 in the above-captioned matter. Reconsideration of the application and a two month extension of the time provided for response are respectfully requested. The Commissioner is hereby authorized to debit all amounts deemed required from Deposit Account No. 50-1604.

In the Office Action, a response was requested to the various rejections under 35 U.S.C. §102 and §103. Applicant had previously requested clarification of the various other rejections so as to determine how to proceed with respect to all of the claims. In view of the March 7, 2006 Office Action, however, the claims have been amended as set forth below.¹

Rejections Under 35 U.S.C. §102

In the Office Action, claims 1-2, 7-8, 17, 19-20, 22, 25-26, 36, 39-43, 45, 47, 49, 50-52, and 54-56 were rejected under 35 U.S.C. §102(b) based on Dellinger et al. (U.S. Patent No. 5,853,993). Further thereto, the claims have been amended to recite a second component having multiple second arms, wherein the second arms include a sequence complementary to the capture sequence of the RNA reagent. This feature is not taught or suggested in Dellinger. In Dellinger, the sequence complementary to the RNA is on a single arm. See e.g., reporter probe molecule 9 shown in Figure 1. Accordingly, reconsideration and withdrawal of the §102 rejections is respectfully requested.

¹ In addition to the amendments discussed below, the clauses in several claims of the application have been modified for clarity.

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Rejections Under 35 U.S.C. §103

In the Office Action, claims 3, 21, 44, 46, 48 and 53 were rejected under 35 U.S.C. §103 based on Dellinger (U.S. Patent No. 5,853,993) in combination with Nilsen (U.S. Patent No. 5,487,973); claims 18, 35, and 37-38 were rejected based on Dellinger in combination with Weston et al. (WO99/37805); and claims 4-6, 9-16, 23-24, and 27-34 were rejected based on Dellinger in combination with Van Ness et al. (U.S. Patent No. 6,361,940).

Further thereto, the independent claims have been amended to recite a second component having multiple second arms, wherein the second arms include a sequence complementary to the capture sequence of the RNA reagent. As discussed above, this feature is not taught or suggested in Dellinger, as Dellinger's complementary sequence is only on a single arm.

Nor would the claims be obvious in view of a combination with the Dellinger reference. Dellinger teaches the use of linear single-stranded homopyrimidine or homopurine oligonucleotides. *See*, col. 6 line 48 - col 7 line 8. While Dellinger was aware of the use of branches as shown by his signal components, all of his molecules appear to place the dU or dT oligonucleotide (complementary to the RNA) on a single arm. *See e.g.*, Figs. 3 and 5. Dellinger teaches that these linear oligonucleotides can bind in the major groove of a Watson-Crick double helix. *See*, col. 6 line 48 - col 7 line 8. Such triple helix formation is used to enhance the detection of nucleic acid analyte. *See*, col. 6 line 48 - col 7 line 8.

In the present invention, however, a branched configuration of sequences complementary to the RNA is used. The claimed molecule has multiple arms, and each of those arms includes a complementary sequence to the RNA capture sequence. Counsel submits that Dellinger's teaching of a linear single arm as the complement to the RNA teaches away from use of the branched configuration

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for the complement claimed herein. Whether considered individually or in combination with the other references, Dellinger leads one away from the structure of the present invention, which is evidence of non-obviousness.

Accordingly, reconsideration and withdrawal of the §103 rejections is respectfully requested.

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Respectfully submitted,



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